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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/510,657

05/26/2005

Toshio Kazama

AB-1387 US

9142

7590

03/09/2006

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EXAMINER

NGUYEN, JIMMY

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/510,657	Applicant(s) KAZAMA, TOSHIO	
	Examiner Jimmy Nguyen	Art Unit 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 0704 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Argument

The applicant argument has been carefully considered with the following effect;

- a. Applicant's arguments with respect to claims 1- 8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarzwell (US 6, 034,532) in view of Kazama (US 6,556,033).

As to claim 1, Tarzwell discloses (fig 3) an electroconductive contact probe, comprising:

a holder member (30) defining a plurality of holder holes (plurality of holes, column 4 line 30 - 35) passed across a thickness (35 – 39) of said holder member (30);

an electroconductive coil spring (141, fig 8) received in each of said holder holes (plurality of holes, column 4 line 30 - 35),

a pair of electroconductive contact members (end of 145, 147, fig 8) provided on either axial end of said coil spring (141);

said electroconductive coil springs (141) being installed in said holder holes (plurality of holes, column 4 line 30 - 35) so as to be substantially unstressed (column 3 line 1 - 5) under a rest condition of said contact probe 140)

However, Tarzwell are silent on an engagement portion provided in each of said holder holes for preventing at least one of said contact members from coming off from said holder hole.

On the other hand, Kazama teaches (fig 1) an engagement portion (6a) provided in each of said holder holes (2a, 3a) for preventing at least one of said contact members (6) from coming off from said holder hole

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to modify the teaching of Tarzwell and use the engagement portion as taught by Kazama for the purpose of retaining the probe within the hole after compressing and uncompressing.

As to claim 2, Kazama discloses (fig 1) an electroconductive contact probe according to claim 1, wherein said contact members on either axial end of each coil spring 95) comprise needle members (6).

As to claim 3, Kazama discloses (fig 1) an electroconductive contact probe according to claim 2, wherein a pair of engagement portions (6a) are provided in either

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axial end of each holder hole (2a, 3a) to prevent both of said needle members from coming off from said holder hole.

As to claim 4, Kazama discloses (fig 1) an electroconductive contact probe according to claim 2, wherein an engagement portion (6a) is provided in only one of two axial ends of each holder hole (2a, 3a) to prevent the corresponding needle member from coming off from said holder hole.

As to claim 5, Kazama discloses (fig 1) an electroconductive contact probe according to claim 1, wherein said contact member (6) on one of said axial ends of each coil spring (5) comprise a needle member (6b), and the contact member on the other axial end of said coil spring (5) consists of a coil end of said coil spring, said engagement portion (6a) being provided in each holder (2a, 3a) hole only to prevent said needle member from coming off.

As to claim 6, Kazama discloses (fig 1) an electroconductive contact probe according to claim 1, wherein said engagement portion (6a) is provided in each of said holder holes (2a, 3a) for preventing only one of said contact members from coming off from said holder hole, and the other contact member is installed substantially flush with the outer surface of the holder member.

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As to claim 7, Kazama discloses (fig 1) contact probe according to claim 1, wherein said engagement portion (6a) comprises a shoulder (9) defined in each holder hole (2a, 3a).

As to claim 8, Kazama discloses (fig 1) contact probe according to claim 7, wherein said holder member comprises a plurality of layered support members (8), and said shoulder (9) is defined between adjoining two of said support members having holder holes (2a, 3a, 1a) which are coaxial to each other but having different diameters formed therein.

As to claims 9, 17, Tarzwell discloses (fig 3) an electroconductive contact probe according to claim 1, wherein holder member comprises a plurality of layered support members.

As to claim 10, Tarzwell discloses (figs 3, 8) an electroconductive contact probe system, comprising:

an electroconductive contact probe (140) having a first axial end (end at 145) and a second axial end (end at 147), the probe further comprising an electroconductive coil spring (141) and a first electroconductive contact member (contact tip at end 145) disposed on the first axial end, wherein the length of the probe is decreased when a load (compressed when contact) is applied to the coil spring;

a holder member (30, fig 3) having a first surface (top surface) and a second surface (bottom surface), the holder member (30) further comprising a holder hole (plurality of holes, column 4 lines 30 – 35) extending along a thickness (35 – 39) of said holder member (30),

the length of the probe when disposed in the holder hole is substantially the same as the length of the probe when no load is applied to the coil spring (column 3 line 1 – 5, unstress condition),

However, Tarzwell is silent on the holder hole comprises an engagement portion. Wherein the probe is disposed in the holder hole, and the engagement portion can prevent the probe from sliding out of the holder hole through the first surface.

On the other hand, Kazama teaches (fig 1) an engagement portion (6a) provided in each of said holder holes (2a, 3a) for preventing at least one of said contact members (6) from sliding out the holder hole through the first surface.

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to modify the teaching of Tarzwell and use the engagement portion as taught by Kazama for the purpose of retaining the probe within the hole after compressing and uncompressing.

As to claim 11, Kazama discloses (fig 1) the probe system further comprises a flange portion (6a) having a first diameter and second electroconductive contact member (the other end), wherein the second contact member comprises a needle having a tip portion (6b) disposed on the second axial end.

As to claim 12, Kazama discloses (fig 1) the distance between the flange portion (6a) and the tip portion (6b) of the needle is substantially the same as the distance between the engagement portion (6a) and the second surface (bottom surface).

As to claims 13, 18, Kazama discloses (fig 1) the electroconductive contact probe system of claim 12, wherein the first electroconductive contact member (6) has a second diameter, and the engagement portion (6a) comprises a hole (2a) having a third diameter that is: 1) less than the first diameter, and 2) greater than the second diameter.

As to claim 14, Kazama discloses (fig 1) the contact probe system wherein the engagement portion comprises a shoulder portion that engages the flange portion.

As to claims 15, 16, Tarzwell discloses (fig 3) the electroconductive coil spring (141) further comprises a closely wound portion and a coarsely wound portion.

As to claim 19, Tarzwell discloses (fig 3) the contact probe further comprising a plurality of electroconductive contact member (41 – 43) and plurality of holder members (35 – 39).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen whose telephone number is 571 –272-1965. The examiner can normally be reached on M-F from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramtez Nestor, can be reached on 571- 272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jimmy Nguyen

2/28/06


VINH NGUYEN
PRIMARY EXAMINER
03/03/06

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